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12 Using written, audio and video vignettes to translate knowledge to elite strength and

13 conditioning coaches

Abstract

Research has shown that vignettes are useful in disseminating complex and applied information to practitioners (e.g., Douglas & Carless, 2008) with research mainly utilising written and audio vignettes to disseminate good practice (e.g., Perrier, Smith, & Latimer-Cheung, 2015; Smith, Tomasone, Latimer-Cheung, & Martin-Ginis, 2015). The current study examined the utility of a research-based vignette, presented in different formats (written, audio, video), to disseminate information to elite strength and conditioning (S&C) coaches. A single vignette was developed in three formats: a written, an audio, and a video vignette. The vignette involved an experienced S&C coach as the main character, and the plot outlined how this S&C coach aimed to learn more about effective coaching. Nineteen elite S&C coaches reflected on the utility of different vignette formats. Data were analysed using a thematic analysis (Braun, Clarke, & Weate, 2017). Overall, the results suggest that vignettes are useful in translating knowledge and encourage action, regardless of which format is used. Furthermore, the S&C coaches reported a preference for the video format, due to the video's ability to communicate emotional, verbal and non-verbal behaviours. Practically, the vignette prompted the S&C coaches to reflect on areas such as coaching philosophy and values resulting in initial changes in their coaching practice.

Keywords: coach development, knowledge translation, narrative learning

## Introduction

Knowledge translation process is about bridging the gap between what is known from research, knowledge synthesis, and the successful implementation of this knowledge by the practitioner (Canadian Institutes of Health Research, 2013). Thus, knowledge translation aims to close the ‘know-do’ gap between research and practice (Graham & Tetroe, 2007).

One crucial component of the knowledge translation process is knowledge dissemination. As Smith et al. (2015) have suggested, knowledge dissemination asks how knowledge might be effectively disseminated, to whom, by which messengers, and to what effect? In answering these questions, it is therefore imperative to consider how research-based knowledge can be disseminated in accessible, credible, and meaningful ways, so that practitioners can fully engage with research findings (Grimshaw, Eccles, Lavis, Hill, & Squires, 2012).

Research consistently highlights that the application of disseminated research-based knowledge into practice can often be a slow and haphazard process (i.e., Reade, Rodgers, & Spriggs, 2008). Practitioners have to spend a considerable amount of time processing or synthesising research-based knowledge, which reduces timely application aimed at effecting practice (Graham et al., 2006). Within the sport sciences, authors such as Reade, Rogers, and Hall (2008) have commented on the debate surrounding the know-do gap, suggesting that while sport science research can make an important contribution to high performance sport, disseminating such research through sport science publications were ranked low as a likely source of information among high-performance coaches. In agreement with these findings, Pope et al. (2015) identified barriers that included the time required to read academic outputs, the ability to interpret the research results, and the lack of direct access (which is restricted to coaches working in the higher education environment). Pope et al., (2015) also reported that coaches identified the academic style and format of academic written work as not being ‘user

friendly' or easy to understand and learn from and were more likely to learn when knowledge is disseminated through verbal communication such as conferences and discussions (Reade et al., 2008).

These findings suggest that coaches might prefer more relevant, multi-sensory ways to learn (including audio and visual methods) presented through online multimedia instruction (Langdon, Harris, Burdette III, & Rothberger, 2015), video (Murray, 2011), or face to face mentorship interactions (Reade, Rodgers, & Spriggs, 2008). Even such approaches are often criticised as learning is reduced to a simple, dominant instructional paradigm, where learning is linear and instruction-centred (Paquette & Trudel, 2016). Indeed, when S&C coach developers, such as National Strength and Conditioning Association (NSCA) and the United Kingdom Strength and Conditioning Association (UKSCA), teach standardised competency-based curriculum within the instructional paradigm, research suggests that such teaching strategies have limited impact on coaches' development in applying psychosocial coaching behaviours (Paquette & Trudel, 2018). The research supports the need to more fully consider alternative learning theories and more creative methods of translating research findings into accessible and user-friendly resources (e.g., narrative learning; Szedlak, Callary, & Smith, 2018).

In line with the International Sport Coaching Framework (International Council for Coaching Excellence, Association of Summer Olympic International Federations, & Leeds Metropolitan University, 2013), which suggests that coaches should commit to lifelong learning and focus on applying professional, inter and intrapersonal knowledge (i.e., knowledge to action), narrative learning theory might provide a novel approach to encourage the development of coaching practice. Narrative learning theory is a psychosocial approach that focuses on stories, which allow us to make sense of the complexity of life and shape

1 what becomes experiences (Frank, 2010). Narrative learning theory suggests that human  
2 beings are meaning makers who use narratives to interpret, direct and configure life  
3 experiences (Brockmeier, 2012). Frank (2010) suggests that narratives perform, which is  
4 contrary to other ways of dissemination that simply imitate or represent thought, emotions or  
5 behaviour such as instructional centred academic writing. Narratives can guide our attention,  
6 affect how we behave and think, and encourage imagination (i.e., what we imagine could be  
7 possible; Brockmeier, 2012). In addition, Smith (2010) further elaborated that narrative  
8 inquiry (i.e., studying people's stories as they occur over time) reveals the temporal,  
9 emotional and contextual qualities of lives and relationship, and as such is suitable to explore  
10 the relationship between an S&C coach and an athlete. Thus, the use of stories should be  
11 considered to motivate coaches to engage in narrative learning, meaning knowledge is  
12 translated into action (Andrews, 2014; Brockmeier, 2009; Szedlak, Callary, et al., 2018).

13         One suggestion for creative dissemination that could encourage narrative learning is  
14 the use of research-based vignettes, which are often referred to within academic methods as  
15 stories that are hypothetical or fictional scenarios to which readers can reflect and respond  
16 (Braun & Clarke, 2013). The strengths of using vignettes for research dissemination have  
17 been well cited in the sport science literature. Vignettes can communicate complex  
18 knowledge in a more straightforward and easy to apply way to a variety of audiences,  
19 including technical coaches (Scott, Hartling, O'Leary, Archibald, & Klassen, 2012), S&C  
20 coaches (Gearity & Metzger, 2017) and athletes (Szedlak, Smith, Day, & Callary, 2018). In  
21 addition, the storied form of vignettes allows them to aid memory and information retrieval  
22 by arousing imagination and allowing practitioners to identify with the characters and  
23 scenario presented (Brockmeier, 2009). Thus, vignettes can initiate narrative imagination,  
24 prompting the practitioner to re-evaluate and reflect on their own experiences in comparison

1 to the vignette scenario (Frank, 2010). After engaging with the story, it has been suggested  
2 that practitioners may be prompted to recall relevant experiences and engage in an internal  
3 dialogue and discussion (Moon, 2007; Potrac, Jones, Purdy, Nelson, & Marshall, 2013). As a  
4 consequence of this reflection, the practitioner can be encouraged to analyse the  
5 meaningfulness and relevance of the situation and imagine what change is possible and how  
6 (Smith et al., 2015). Taken together, these findings suggest that vignettes hold much potential  
7 as a coach development tool.

8         Whilst vignettes have predominantly been used to disseminate information in areas  
9 such as health education (i.e., Foulon & Ginis, 2013), and business (i.e., Peek, Peek, &  
10 Horras, 1994), more recently there has been an emerging use of vignettes in sporting  
11 contexts. Callary, Werthner, and Trudel (2012) used vignettes to demonstrate how women  
12 coaches learn from their sport experiences, whereas Szedlak, Smith, et al. (2018) used  
13 vignettes to stimulate interviews regarding perceptions of effective sports coaching practice.  
14 Yet only limited research has examined the use of vignettes to disseminate applied  
15 information to develop practitioners' knowledge, for example, in the work of mentors (Perrier  
16 et al., 2015), health care professionals (Smith et al., 2015), and coaches (Douglas & Carless,  
17 2008). Douglas and Carless (2008) utilised vignettes as a coach education tool illustrating the  
18 potential of vignettes to stimulate reflective practice, while Gearity and Metzger (2017)  
19 constructed evocative stories taken from the first author's previous experience as an elite  
20 S&C coach in order to promote discussion about micro-aggressions and micro-affirmations in  
21 sport coaching.

22         While the above literature provides evidence of the utility of vignettes to disseminate  
23 information to practitioners, the use of vignettes has predominantly been restricted to written  
24 stories. Thus, whilst the call for more creative dissemination has been answered in part, there

1 is still a reliance on the written format. The exception to this is Smith et al., (2015) who used  
2 audio vignettes to communicate physical activity knowledge to health care professionals  
3 working with spinal cord injury patients. In using an audio format, the authors concluded that  
4 several attributes contributed to the effectiveness of the vignette. These attributes included  
5 the plot and content that resonated with the audience, credible characters as actors, and the  
6 inclusion of an authentic dialogue and context. Yet of particular note is that participants in  
7 Smith et al.'s study also suggested that video vignettes could be more effective in  
8 communicating information, as video is visually engaging and possibly captures relational  
9 interactions more effectively. Whilst S&C coach developers, such as the National Strength  
10 and Conditioning Association (NSCA), have utilised technology in their accreditation  
11 process, including multimedia instruction and video, the use of video stories (i.e., vignettes)  
12 to encourage multisensory narrative learning needs further exploration. Indeed, with the  
13 advance of technology shaping how we relate, communicate, and socially interact (i.e.,  
14 Dabbagh & Kitsantas, 2012), the utility of the vignettes could be enhanced through the use of  
15 technology.

16 To answer the call for more creative methods of dissemination, the focus of the  
17 present study was to build on previous literature (Gearity & Metzger, 2017; Perrier et al.,  
18 2015; Smith et al., 2015) by examining the use of vignettes as part of the knowledge  
19 translation process to develop elite S&C coaches. In doing this, we had three specific aims.  
20 Our first aim was to explore S&C coaches' perceptions of a vignette as a method of  
21 disseminating information. Second, we explored what actions, if any, were initiated as a  
22 result of knowledge translated through the vignette. Third, and whilst not suggesting that one  
23 format is more effective than another, we aimed to examine S&C coaches' perception of

1 preferences for the format of the vignette (written, audio, visual) through which information  
2 was presented.

### 3 **Methodology**

#### 4 **Design and Philosophical Assumptions**

5 The study design was underpinned by ontological relativism, which views reality as  
6 multiple truths that are created through relationship and dialogues with others, and  
7 epistemological constructivism meaning knowledge is constructed and subjective (Sparkes &  
8 Smith, 2014). Thus, to encourage narrative learning, vignettes are seen as potential resources  
9 from which people may construct their own personal stories and interpret and communicate  
10 their own experiences. First, we developed the vignette that would disseminate research-  
11 based knowledge about effective behaviours and characteristics in S&C coaching. We used a  
12 continuous narrative developmental approach, meaning that the vignette consisted of a story  
13 unfolding through a series of fixed parts (Jenkins, Bloor, Fischer, Berney, & Neale, 2010). A  
14 continuous narrative has the ability to keep the participant interested and engaged as each part  
15 of the vignette is short, and builds upon previous events, meaning that contextual material  
16 need not to be supplied for each part (Barter & Renold, 2000; Hughes, 1998). To construct  
17 the vignette, we followed the template provided by Smith et al. (2015) for designing  
18 authentic, narrative-based knowledge dissemination tools. This approach encouraged the  
19 development of a vignette that was authentic, based on the criteria of relevance, accuracy and  
20 credibility. The vignette focused on one main character (Pete), who was an experienced S&C  
21 coach. The plot of the vignette included three parts that outlined Pete's learning about what  
22 constitutes impactful S&C coaching practice in an elite sport environment. In order to ensure  
23 relevance, the content of the vignette was congruent with the International Sport Coaching  
24 Framework (ICCE, ASOIF, & LMU, 2013) and based on existing literature representing



suggested competencies in *professional knowledge*. Thus, the content included the use of effective instruction (e.g., Massey et al., 2002); the need for current scientific knowledge (e.g., Dawson, Leonard, Wehner, & Gastin, 2013; Dorgo, 2009); good planning and organisational skills (e.g., Becker, 2009); and *interpersonal knowledge* including the ability to motivate, listen, inspire, praise and provide feedback (i.e., Szedlak, Smith, Day, & Greenlees, 2015). Also included was content focused on building good relationships based on trust and respect (e.g., Szedlak, Smith, et al., 2018); *intrapersonal knowledge*, which encourages the use of reflective practice (e.g., Kuklick & Gearity, 2015; Tod, Bond, & Lavalley, 2012); and lastly, possible influences of such competencies on the holistic development of the athlete (e.g., Szedlak, Smith, et al., 2018). To enhance accuracy, the dialogue within the vignette used participant quotations from Szedlak et al.'s (2015) interviews with athletes regarding the effective behaviours of their S&C coaches. Finally, to enhance credibility of the characters, the plot, and context (Smith et al., 2015), we established a working group of three experienced S&C coaches. This group met regularly to discuss whether the evolving vignette was representative of an S&C coach working in elite sport and their decisions were guided by the UKSCA competencies to become an accredited S&C coach (UKSCA, 2018). As an example, the group discussed how varied the work of an S&C coach could be and how an experienced S&C coach would have to be effective in working with elite level athletes from a wide range of different sports. Thus, we ensured that in each part, Pete (the S&C coach) exemplified a different element of the S&C coaching role such as physiological testing, conditioning, weightlifting, and rehabilitation to elite level athletes from various sports including sailing, rowing, gymnastics, windsurfing, and hockey. Finally, the credibility of the messenger (Smith et al., 2015) who would deliver the vignette to participants, was also considered. In this case, the primary researcher and “messenger” is an

experienced S&C coach working in elite sport, and thus, was seen as credible with the target audience of his peer S&C coaches.

The vignette, consisting of three parts, was constructed in three separate formats, a 2,000-word written vignette, an audio vignette, and a video vignette, with each format using identical dialogue. The written vignette was a typed play script. For the video and audio vignettes, we recruited amateur actors and a director and audio recorded and filmed the vignette with the use of a single semi-professional high definition camcorder. The video vignette was then edited by the lead author using a professional editing software [Sony Vegas Pro 13.0] and saved as an mp4 file. The audio vignette used the audio content only and was saved as an mp3 file. A sample copy of a video and audio and vignette is available on YouTube (<https://www.youtube.com/user/101zete>) and a copy of the script can be obtained from the first author.

### **Participants**

Experienced elite S&C coaches were recruited using a criteria based purposive sampling strategy (Sparkes & Smith, 2014). There were three criteria for the selection of participants, as outlined by the Talented Athlete Scholarship Scheme to be working with elite athletes (Taylor, 2016). These were i) a minimum of three years full-time coaching experience in elite sport (i.e., working with full-time funded athletes representing their country or team at the highest achievable level i.e. World/European championship, Olympic games and County Championship Division One); ii) experience working with a variety of sports and athletes, including teams and individuals, indicating a high level of experience in different elite coaching contexts; and iii) accreditation by the UKSCA or NSCA, ensuring that participants interviewed were not self-declared S&C coaches, a trend commonly adopted in the fitness and performance context. These criteria were used to ensure that the S&C

coaches participating in the study had built up a high level of technical expertise and coaching skills as required for initial and yearly re-accreditation by the UKSCA or NSCA. Because the focus of the current study is on the overall holistic development of athletes at the elite level, it makes sense to understand the perceptions of elite S&C coaches who would work with such athletes. The final sample consisted of 17 male and 2 female S&C coaches, covering a variety of sports such as cricket, sailing, field hockey, football, athletics, and sitting volleyball. All S&C coaches were residents and coaching within the United Kingdom (white British=18, white Irish=1). The S&C coaches had an average age of 36 years (Range=27-45; SD=5.9) and average experience of 13.8 years (Range=25-7; SD=3.9) with 10.1 years at an elite level (Range=8-15; SD=2.6).

### **Procedure and interview guide**

After obtaining institutional ethical approval, the S&C coaches participated in a one-to-one vignette-interview session with the researcher. These took place either via skype (n=12) or in person (n=7). Each interview began with some general questions, for example, “Tell me about your coaching experience so far?” and “Tell me about what has been the highlight in your career so far?” The interview was then split into three sections. In section one, participants were invited to either read, listen to, or watch part one of the vignette (with the order randomly assigned). Once this had been completed, participants were then asked questions regarding what (if anything) they had learned about effective coaching practice and whether this scenario resonated with their own experiences. Example questions included, “Tell me what you have learned from the story?”, “Can you identify any effective behaviours and characteristics of the S&C coach?” and, “Does it remind you of your own coaching experiences?” The second section of the interview then explored whether the vignette could be used to prompt participants’ actions. Participants were asked “If you could

1 change your coaching overnight right now, what would you like to see improve and why?”  
2 and, “If you could commit to a plan of introducing change to your coaching practice, how  
3 would you do this and over what time?” These two questions were drawn from the principles  
4 of appreciative inquiry (i.e., the dream and design phase), which encourages the participant to  
5 imagine what could be possible and to explore a realistic plan that allows for active behaviour  
6 change (Trajkovski, Schmied, Vickers, & Jackson, 2013). These first two sections of the  
7 interview were then repeated using a different format each time (i.e., if the participant read  
8 part one, then they listened to or watched part two) and moving through part two and three of  
9 the vignette. After the participants had watched, read, and listened to the three parts of the  
10 vignette, section three of the interview explored their perceptions of the three different types  
11 of vignette. For example, participants were asked, “Which format did you prefer and why?”,  
12 “Which format was the most memorable to you and why?”, and “Which of the three formats  
13 was more useful in encouraging you to identify with the scenario/challenged your coaching  
14 practice? Why?”

15 In order to enhance discussion with participants, we used a whiteboard for face-to-  
16 face and a shared notebook (OneNote) via skype for phone interviews, on which we noted  
17 key phrases of the participants’ responses. This allowed them to revisit points already made,  
18 prompting further explanation. Further, throughout the interview participants were asked  
19 probing questions, such as “Why is this?” and “What do you mean by this?” to clarify and  
20 prompt elaboration on general comments participants made such as “this story was helpful”  
21 or “it was similar to my experiences”. The interviews lasted an average of 75 minutes  
22 (Range=61-80; SD=4).

23 One week after the initial interview, we conducted a brief follow up interview with  
24 each participant, lasting approximately 15 minutes each (Range=12-23, SD=3). This time

between interviews allowed the S&C coach to consider and initiate possible active change in their coaching practice. First, we intended to discover how, if at all, the knowledge disseminated by the vignette had influenced their coaching practice. Second, we asked the participants about which type of vignette made them remember the information they acted upon and why. Sample questions included “Tell me what you can remember from the story?”, “What changes, if any, have you made in your coaching practice over the last week as a result?” and “Which format made you remember this information? Why?”

## **Data Analysis**

The data were analysed using an inductive thematic analysis following the six-phase procedure outlined by Braun et al. (2017). This type of analysis allowed us to identify main themes in the data without being restricted to pre-existing codes. The transcripts were read and re-read by the first author followed by gathering initial codes. The initial codes were collapsed into potential sub-themes and all data pertaining to the sub-themes were gathered. Next, the sub-themes were reviewed against the entire data set and then combined and refined into larger main themes, which involved thinking about the relationship between codes, themes, and levels of themes. Following on, we reviewed the themes in relation to the entire data set and generated a thematic map including clear names for each theme. Last, we produced the written report of the results. This final step allowed us to analyse whether the data had been interpreted and made sense of, resulting in a well organised, concise, coherent and compelling story about the topic (Braun et al., 2017). Data from the first or preceding interviews were analysed before conducting the next. We repeated this process and recruited participants until we achieved saturation. Data saturation is attained when there are no more emergent patterns in the data, at which point completing further interviews does not add any

new information (Hennink, Hutter, & Bailey, 2010; O'Reilly & Parker, 2013). As a result of this process, we identified three main themes and eight sub-themes.

### **Enhancing rigor**

In line with our relativist ontology, we drew from an ongoing list of the characterising traits to judge the quality of the study (Burke, 2016; Smith & McGannon, 2017). This means the criteria chosen are representative of the context and purpose of the study judged (Smith & McGannon, 2017; Smith & Sparkes, 2009; Sparkes & Smith, 2009, 2014). In the present study, we invite the reader to consider the following seven quality indicators: the topic of research, rich rigor, sincerity, transferability of findings, naturalistic generalisation, providing a significant contribution, and meaningful coherence (Smith, 2017; Smith & McGannon, 2017). First, the topic of research needs to be relevant, timely, and significant. Research so far has been limited addressing effective S&C coaching behaviours and their effect on athletic development, and novel ways to disseminate this knowledge, such as the use of vignettes to encourage narrative learning, has been neglected. Second, to enhance rigor, we ensured data saturation was achieved thus providing a sufficient sample (Smith & McGannon, 2017). Third, the researcher used a reflective diary throughout the data collection and analysis process to enhance transparency about the method and findings (Tracy, 2010). The co-authors, acting as 'critical friends', routinely discussed entries from the reflective diary. This practice of self-reflexivity highlighted the researcher's active and transparent nature in the data analysis process (Sparkes & Smith, 2014). As an example, the team discussed how the first author's coaching experience and knowledge may influence his interpretations of the data. The co-authors provided alternative explanations and interpretations which enhanced the sincerity of the data analysis (Braun et al., 2017).

Fourth, we limited participation to S&C coaches who were highly experienced, working in the elite sport environment with a variety of different sports to enhance the transferability of the findings (Tracy, 2010). Fifth, we aimed to encourage naturalistic generalisations by highlighting how the research impacted and affected the participating S&C coaches (Smith, 2017). This process allowed the S&C coaches to determine if and how the experiences presented in the vignette can be applied to their own personal context (Hellström, 2008). Sixth, to enhance the study's methodological contribution, we aimed to illuminate how and why different types of vignettes influence the knowledge translation process, and thus, amplify the call for more variety within narrative research methods. Finally, to ensure coherence of the results, the researchers used an audit trail to scrutinize the data collection process in conjunction with entries from the first author's reflective journal (Connelly & Peltzer, 2016; Tracy, 2010). Initially, the first author analysed the data and discussed the themes with the second author. Then authors three and four evaluated the presented themes. We repeated this process several times until all authors agreed that the themes represented the data analysed.

## Results

Three main broad themes are presented that describe participants' experiences of reading, listening to, and watching the vignette. These results focus on participants' overall perceptions of the use of vignettes to disseminate knowledge, the coaching actions prompted by the vignettes, and perceptions of each type of vignette (see Figure 1).

### Coaches' Perceptions of Vignettes for Knowledge Dissemination

This theme explores S&C coach perceptions of the use of vignettes as a knowledge dissemination tool, focusing on resonance, memorability of the information disseminated, and narrative imagination.

**Resonance.** Participants described that all formats of the vignette encouraged reflection, as the story created an emotional response or opinion based on the participants' personal experiences of coaching. Thus, the vignette resonated with participants, who connected with the plot, characters and dialogues within the vignette, allowing them to recall similar past experiences. For example, after watching Pete (the S&C coach in the story) prioritise the athletes' sport over his programme, one participant explained:

This is one of my fears. This is the stuff I reflect on. I have done this [coaching] for quite a long time, and I hope to recognise my previous mistakes. I have had times when I just pressed on with my programme and did not recognise that the athletes had a sport to do, so I can resonate with that really well. (Participant 8)

The above quotation illustrates how the vignette may provide powerful tools for allowing S&C coaches to open up and share their own experiences. In particular, resonating with mistakes made by the lead character may allow S&C coaches to confront their own practice and share their fears more openly. Yet, as well as sharing fears, resonance also allowed participants to question their own coaching practice:

The vignette personalises it. You can easily identify with where the athletes are coming from. The vignette is just easy to relate to and encourages me to think back to a similar session that I have done. You then start questioning whether you would agree or disagree with what the S&C coach [Pete] has done [in this case providing the rationale for the exercise selection to educate the athlete] and I started thinking how I reacted in my previous coaching session. Should I have changed my approach? If so why? (Participant 7)

These quotations illuminate how the vignette disseminated information in a way that encouraged participants to not only reflect on their own experiences, but also question their



1 decisions and consider alternative actions. In particular, participants were able to achieve this  
2 first through questioning the actions of the lead character and subsequently relating these  
3 actions to their own experiences. Thus, participants demonstrated their active engagement in  
4 the story and ability to consider how the disseminated information fit within their own  
5 coaching approach.

6 **Memorability.** Participants described that the use of the vignette enhanced their  
7 ability to recall disseminated information. For example, one participant explained why the  
8 information delivered through the vignette was particularly memorable:

9 The S&C coach displayed a lot of sympathy and understanding, he discussed with  
10 them [the athletes] about how they were tired but how they should still carry on with  
11 their training programme. When he went out of the room, they spoke about how they  
12 respected him and how they trusted him and he has built that over a long period of  
13 time with them. I can see that replaying in my head a bit, like watching it again, I can  
14 remember seeing how enthusiastic he was standing right in front of the camera at the  
15 end reflecting on the day. That enthusiasm really spoke to me it just conveyed a lot of  
16 positivity to me over the last week. (Participant17)

17 This demonstrates how the vignette provided the potential to do more than simply  
18 disseminate memorable information. Instead it was able to ‘speak or create personal  
19 meaning’ to participants. In doing this, the information conveyed in the vignette became  
20 more memorable and was consequently reflected on during the following week.

21 **Narrative imagination.** Finally, participants described how the vignette encouraged  
22 narrative imagination. Narrative imagination, or the ability to connect with the form or  
23 template to interpret stories and make sense of their lives, enabled the participants to imagine  
24 how the narrative portrayed in the vignette could affect their own coaching practice:

1 I link that vignette to a specific conversation that I had with an athlete and it just  
2 easily applies to my own coaching environment. In this scenario, there was lot about  
3 trust and rapport and also getting to understand how the S&C coach fits into the  
4 athlete's sport schedule. This is so essential within the sport [sailing] I am working at  
5 the moment. I am working with a large number of athletes and time is always  
6 precious. Reflecting on this, I actually made sure in my last session, that I gave the  
7 athlete a little time at the beginning to just have a chat about her season and how she  
8 felt that day. My default would be to go straight to the warm up. (Participant #12).

9 Here, the participant linked the narrative of the vignette to how he made sense of his own  
10 coaching practice. Moreover, this quote illuminates the process of how narrative imagination  
11 encouraged the participant to consider how the disseminated knowledge led to action. The  
12 participant reflected on the relational aspect of coaching, identified how important this was  
13 within his coaching context, and as a result altered his schedule to allow the building of  
14 rapport and a positive relationship at the beginning of a session.

### 15 **Knowledge to Action**

16 The following theme describes how participants applied the knowledge disseminated  
17 by the vignette into action. In particular, this theme demonstrates how the vignette allowed  
18 participants, during the week after they engaged with it, to evaluate their values and change  
19 their behaviours, as well as enhancing their self-reflection process.

20 **Reflecting and changing behaviour.** As a consequence of engaging with the  
21 vignette, participants described how they evaluated their own coaching philosophies and  
22 values. As one participant described, "[the takeaway] for me is to revisit my coaching  
23 philosophy and try to work out how I will be able to motivate my athletes in the power  
24 sessions when they are tired." (Participant 9). In response to the S&C coach (Pete) in the

1 video leaving the athletes to encourage autonomous behaviours [Part 1], one participant  
2 elaborated on how the vignette served to reinforce his coaching values:

3       How are you going to better understand yourself [as an athlete] if you have an S&C  
4       coach saying “today you do these lifts and tomorrow you do this and the next day  
5       something else”. I do not get that. I call it Nintendo Coaching. Whereas you should  
6       get to a stage where they just come in and you are allowing them to just train, and  
7       they train, and make the right decisions about how much they are going to lift that  
8       day. The only time I would intervene is, if I would think they are making a major  
9       error. So, allow them to make the decision [about load and techniques] but if the  
10      decision is incorrect then ask them to reflect and step in. (Participant 10).

11 Feeling justified in his coaching practice allowed this participant to be passionate about his  
12 personal coaching values. Taking the reflection process even further, one participant  
13 highlighted that as a consequence of reviewing his coaching practice and feeling reinforced,  
14 he reworked his views and ideas, and thus engaged in more critical reflection. In response to  
15 the content in part 2 of the vignette, which illuminated how effective instruction and  
16 scientific knowledge can impact the way an S&C coach would programme and deliver future  
17 sessions, this participant elaborated:

18       The video vignette was quite effective in making me reflect on my own practice.  
19       Yeah, I have probably seen both sides, one where you would have very successful  
20       sessions like that [the athlete leaving very motivated and confident] and how that  
21       helps build that relationship with the athlete. Then when moving forward [future  
22       sessions] I can be a little bit more experimental and push the athletes forward and they  
23       kind of jump in head-first and do it because they trust me. On the flip side, I have had  
24       sessions where I worked with an athlete and I battled to make him technically

1           proficient and the athlete did not get it and left a little bit frustrated. That is not  
2           necessarily a backward step, but I realised that I need to take the next session a little  
3           bit slower and provide more bite-size information and instructions to that particular  
4           athlete. That is coaching, continually analysing and improving your approach.

5           (Participant #14)

6   These responses demonstrated how the participants personally consider and aim to apply the  
7   knowledge disseminated by the vignette. As a consequence of these considerations  
8   participants also discussed direct actions taken. For example, participant two set up feedback  
9   surveys to gain insight on how the athletes perceived their sessions, and participant five had  
10   allowed athletes to have more autonomy by stepping back and observing from a distance.  
11   Furthermore, participant 16 reflected that “by being encouraging and fun and that seemed to  
12   make them quite motivated to get going again which is usually quite difficult after a long  
13   season”. This suggested how the process of engaging with the vignette had rekindled his  
14   early enthusiasm for coaching.

15           **Enhancing the reflection process.** The participants suggested that the vignette  
16   provided or initiated a more formal structure that enhanced their reflections, with one  
17   participant highlighting:

18           I think the vignette was brilliant as it made me reflect on my own coaching practice.  
19           What I picked out made a lot of sense to me at that time and in that specific context. I  
20           mean, when I saw the S&C coach in the video changed the programme of the rowing  
21           athletes so that they were fresher for the rowing session [Part 3], it made me reflect on  
22           situations where I should have probably done the same. So, what I have done as a  
23           result is that now, before I start a session, I ask the athletes how they feel from 1 out  
24           of 10, and if they are tired, below 6, I will change the programme accordingly. I think

1           this kind of reflection process needs to be done more often on a lot of different  
2           disciplines, unfortunately what happens quite often is that people prioritise their time  
3           on delivery and not on reflection and reviewing. And that is something that I am keen  
4           for S&C coaches to build into their diary, when do you review and when do you  
5           reflect as opposed to just deliver, deliver and deliver. (Participant 10)

6   This quote suggests that the process of reflection is not only of value to evolving S&C  
7   coaching practice but might be seen as of equal importance to technical delivery. As such, a  
8   more formal process of guiding and encouraging S&C coaches to deeper levels of reflection  
9   through the use of vignettes should be considered.

#### 10 **Coaches' Perceptions on the Three Types of Vignettes**

11           **The use of written vignettes.** Participants highlight how the written format allowed  
12   them to easily identify key themes presented. One participant suggested:

13           In terms of being able to pull out key themes, the written vignette was the easiest and  
14           clearest because I can re-read it and make notes, for me the written one is the most  
15           effective because I'm used to reading articles and highlighting key areas.

16           (Participant 1)

17   Here, the participant perceived that familiarity, in this case with the written format, allowed  
18   him to engage in the details of the vignette. In the words of another participant, this is like,  
19   “writing a diary and you re-read your own notes and that way of reflecting allows for more of  
20   a thought process” (Participant 9). When asked in a follow-up interview one week later as to  
21   what they could remember from the written vignette, one participant explained “I think the  
22   written scenario seemed a little bit more detailed than the others and it allowed me to build up  
23   a picture of the S&C coach and the athletes in my mind, which I can clearly remember”  
24   (Participant 18). Such suggestions are interesting given that the same information was

presented in each type of vignette. Yet this quotation highlights how the written format allowed the reader to picture the scenario and imagine the conversations, which helped this participant to remember the information disseminated by the vignette.

**The use of audio vignettes.** Participants perceived the imagination required to build up the characters and the context through the audio format (similar to the written) an advantage to engage with information disseminated just from listening to the audio:

I quite like the audio, mainly because I like listening to podcasts. The benefit of having just the audio is that in your mind you pitch together almost what is in front of you. With the audio, you are just able to listen and imagine the context that you are in. It would be difficult for that video context to be exactly the situation that you are thinking about. When you listen to an audio of a different situation, you might link that to a specific conversation and having a video in front of you might blur that kind of connection. (Participant#12)

In particular, this participant, who was familiar with the audio format, suggested that the audio format has the capacity to arouse imagination, which implies that the participants needed to make an effort to imagine or build a mental picture themselves. Thus, the use of audio might help the listener to apply the information disseminate to one's own personal context.

**The use of video vignettes.** The enhanced sensory stimulus of both seeing and hearing provided by the video enabled the participants to create mental pictures which lingered and "sticks in the mind a little bit more" (Participant 15) and "is just easy to remember" (Participant 1). The use of video vignettes was perceived as direct, and focused the participant's imagination:

1           If you read you will make it up in your imagination, which is great when you read  
2           fiction, but backing the words up with visuals makes it much more concrete in your  
3           head. It makes me concentrate on the actual interactions or what they are doing and  
4           saying a little bit more, which really helps me to think about my own coaching.

5           (Participant 11)

6       These quotes highlight that the concrete and animated mental images in the video direct the  
7       participant's focus toward the interactions between the S&C coach and the athletes. As a  
8       result, participants examined the behaviours and characteristics of the S&C coach in the  
9       vignette and were prompted to discern their own practice and possible ways of improving.

10       Secondly, participants also highlighted how the video brought the characters and the  
11       story alive. After watching the video (Part 3), where the S&C coach (Pete) works with two  
12       elite rowers, one participant reiterated how the video provided elements such as eye contact  
13       and body movements, which appeared to allow for a clearer picture of how the S&C coach  
14       interacts within the relationship; "How does he greet them? Does he look them in the eye?  
15       Does he sit down? Is he busy doing something else whilst they are talking to him and he is  
16       not paying attention?" (Participant 11). Another participant elaborated how the interactions of  
17       the characters influenced the credibility of the story, saying "You see the interaction between  
18       them, the body language and the tone in which things are communicated, how the  
19       engagement is, how they interact, how they feel, there is definitely more realism to the video"  
20       (Participant 19). Thus, the video appeared to connect the dialogue with body movements and  
21       eye contacts made by the characters. The participants therefore seemed able to observe the  
22       characters exhibiting certain emotions and feelings, as well as listening to their tone of voice,  
23       which appeared to provide the participants with a real context.

1           The video gives it real and natural context, for example, what is it they are doing in  
2           the gym? What are their techniques like? Is he coaching the technique, is he not  
3           coaching the technique? It just gives a lot of actual context. (Participant 10)

4   This quote shows how the video format allowed participants to observe specific elements that  
5   could only be analysed and critiqued if presented in a visual format. Such elements included  
6   observing movement (athlete's technique of a lift) and how and in what manner the S&C  
7   coach responds (coaching style). Thus, participants perceived the vignette as believable and  
8   relatable because they expressed a preference for seeing a context rather than having to  
9   imagine:

10           Being able to see that is most powerful for me. How they say it, their expressions and  
11           how they move. It is the old saying 'a picture paints a thousand words'. I guess that is  
12           difficult to get from a piece of paper and you can read about what they saying as they  
13           are going through the conversation. But when you can see it visually it is a more  
14           realistic and believable. The video makes it easier to relate to, as it is closer to what  
15           you might experience if you are working with a group of athletes. (Participant 4)

16   The above responses suggest that the video vignette allowed the participants to combine the  
17   visual, audio, and kinaesthetic, which resulted in a compelling stimulus. As a consequence,  
18   the participants perceived the video to be useful in capturing their attention and provoking  
19   thought and action.

20           Finally, participants explained that the use of video enabled them to identify with  
21   similar experiences or scenarios in their coaching journey. This allowed them to emotionally  
22   connect with the story, which in turn encouraged narrative imagination:

23           Watching the video is an emotion provoking connection. I guess that is why videos  
24           are used everywhere. It triggers different emotions within you that you associated



1           with these expressions [of the athletes and S&C coach]. It is so easy to link the  
2           emotions and feelings you observe [in the interactions of the characters] with what  
3           you felt in similar experiences, it just brings it all back as if you were coaching that  
4           experience again. (Participant #4)

5   This familiar personal connection stimulated participants to examine and discuss opinions on  
6   what they perceived to be effective or ineffective coaching practices and why. The resulting  
7   reflections were seen to be personal and context specific, allowing the participants to examine  
8   their own narratives, or underlying structures or concepts of how they make sense of their  
9   own coaching practice. This means that what was considered by one participant to be an  
10   effective behaviour of the S&C coach in the vignette was sometimes considered an  
11   ineffective coaching behaviour for another participant. For example, participants perceived  
12   that leaving the athletes to carry on with their workout alone was both positive ‘building  
13   autonomy’ (Participant 11) and negative as ‘neglecting coaching duties’ (Participant 19).  
14   When asked about how this emotional connection affected their learning from the video (Part  
15   1), one participant elaborated:

16           Your attention is drawn to specific areas that are relevant and that you focus on at that  
17           particular time and you get some clear learning points from it then you can move  
18           forward with one or two of those based on your current priorities. For me, it was the  
19           caring nature of the S&C coach in the video. That really spoke to me and I started to  
20           think about my own coaching experiences and how I could possibly show a little more  
21           care. This is not something that comes easy to me, most of the times I am just not  
22           aware of it. Because of that, I decided to give my athletes a little more time for  
23           feedback and I made sure at the beginning of the session to have a more general

conversation about how they are doing. Simple things but I feel they were quite effective. (Participant 15).

The above quotes illuminates how participants perceived the video format to enable them to analyse and critically evaluate not only what is communicated, but also how the information is communicated by means of movement, tone of voice, feelings, and expressions. As a consequence, the video was perceived to emotionally capture and engage the participants. Furthermore, this emotional connection allowed the participants to reflect on their own practice. Therefore, the participants considered practical actions that are most pertinent or relevant to their current context, and thus, most impactful. In summary, these results suggest that the written, audio, and video vignette are each effective in disseminating knowledge to coaches. However, personal choice and familiarity may determine which format the S&C coach perceives to be most useful. In addition, the results appear to highlight an overall preference for the video format, due to how the video can communicate emotional, verbal and non-verbal coaching behaviours and characteristics effectively.

## Discussion

The principle purpose of the current study was to explore the use of a vignette as part of the knowledge translation process in developing elite S&C coaches, exploring how the vignette was perceived by S&C coaches and whether the use of the vignette led to any actions of the coach in response. Additionally, we explored the use of different formats of the vignette. The results highlight that the written, audio, and video formats of the vignette all provide valuable resources for disseminating research-based information and encourage the participant to take practical action. Our results also illustrate how the vignette allows the S&C coaches to identify, engage with the scenarios, and remember similar experiences, thereby supporting previous suggestions from Scott et al. (2012) that stories may offer

enhanced memorability and resonance when used to encourage learning. Furthermore, our results show how the vignette can disseminate information to the S&C coaches through what Smith et al. (2015) term resonance, which determines how compelled, engaged, and motivated the person becomes when identifying with the characters, context, and plot of the vignettes (Frank, 2010). As such, resonance enhances the process of naturalistic generalisation, which allows participants to make choices on their own understanding of the scenario presented in the vignette rather than feeling the vignette is instructing them what to do (Smith, 2017). Furthermore, resonance encourages internal dialogue, in which the S&C coach starts to think about and evaluate the information presented by the vignette, and participants noted that the vignette encouraged such dialogue. Internalisation of research findings might not occur as effectively when presented in formats such as results sections in scientific journals (McAdams, 1993; Petraglia, 2009).

Our results extend the previous literature by highlighting how different formats of the vignette influence resonance, memorability and narrative imagination. All formats encouraged what Frank (2010) termed ‘narrative imagination’, which provided opportunity for the S&C coach to discern and discuss other possible scenarios (Andrews, 2014). In the present case, the S&C coaches were able to associate the vignette with a similar coaching scenario or imagined a potential coaching scenario using their own athletes and contexts. Next, they reflected on possible changes needed to become more effective as an S&C coach. The written and audio formats first required the S&C coaches to imagine the context and characters and then lead to narrative imagination. S&C coaches perceived this as a strength, as they seemed able to place and imagine their own athletes, and contexts within the story. Alternatively, the S&C coaches’ perceptions of the video format supported Papathomas’ (2016) supposition that a video format can provide more of the story and enhance the

1 characters' identities and interactions. The S&C coaches were able to not only think about  
2 what, but also how the information was communicated. Thus, independent of the format, the  
3 vignette was seen to encourage the S&C coaches to discern and analyse their own  
4 experiences.

5 Previous literature has highlighted that vignettes are performative as they initiate,  
6 suggest, and call for responses from the coach (Martin, 2007). Knowing what influences the  
7 format has on how and why S&C coaches respond to vignettes is critical if we want to  
8 maximise the potential of vignettes as a knowledge translation tool, we should know how and  
9 why different vignette formats influence S&C coaches' responses. Our results indicate that  
10 the vignette, independent of the format used, disseminated information effectively and is  
11 suitable to encourage and motivate the S&C coach to change behaviour. However, our  
12 findings suggest that S&C coaches have a preference toward the video format, with findings  
13 illustrating how they were emotionally captured and engaged with the video vignette.  
14 Previous research has identified similar strengths of vignettes (Scott et al., 2012), and our  
15 findings support the proposition of Papathomas (2016) that emotions provide meaning to  
16 experiences and connect such events into a plot. Consequently, the S&C coaches considered  
17 practical actions that are most pertinent or relevant to their current context. The video not  
18 only challenged the S&C coaches to evaluate their practice, but also, as suggested by Smith  
19 et al., (2015), reminded and reassured the S&C coaches of areas in their coaching that are  
20 going well. In summary, the video vignette was perceived as providing an emotionally  
21 connecting stimulus and lead the S&C coach into reflection, which included reflection on the  
22 disseminated information and consideration of practical applications, thus achieving  
23 knowledge translation.

Further, the findings of the present study provide evidence that S&C coaches' perceive the video format to enhance their personal identification with scenarios presented. The video format was seen to bring the characters alive with eye contact, body movements, interactions, and emotions providing real context. As Papathomas (2016) suggests, the contents of the story appeared more compelling and stimulating for the participants when watching the video. Written and audio vignettes make the unseen visible by use of imagination; using video, the unseen is already being made visible and the story speaks for itself (Phoenix, 2010). Recent research analysing the cognitive processes of storage, retrieval of information can in part provide an explanation for the enhanced personal application of the video format. Murphy, Nordin, and Cumming (2008) suggest that the process of imagining uses part of our working memory. As we evaluate the information in our working memory, we come to make decisions (Lipshitz, Klein, Orasanu, & Salas, 2001; Lyle, 2010). If the S&C coach does not have to imagine and build up the characters and context first, less memory is used. Paas, Van Gog, and Sweller (2010) suggest that this is due to less *extraneous cognitive load* (any cognitive activity engaged in because of unfamiliarity or the way a task is presented). As a result, the S&C coach can concentrate on the key focus, which is to reflect upon the vignette and recall relevant past experiences from long-term memory. Additionally, our results suggest that the S&C coaches' familiarity or being used to learning through video further reduce extraneous cognitive load. Thus, the overall reduction in cognitive load could possibly explain how personal identification was enhanced and that there were increases in meaningfulness of the information disseminated when viewing the video vignette. Nonetheless, what is meaningful to one S&C coach might not be meaningful to another and the video format might encourage greater individual application. In summary, the video format appears very suitable to the knowledge translation process as the S&C

coaches were seen to respond to what was most meaningful or pertinent to them at that particular time according to their personal coaching situation.

Our results also reveal how vignettes can compel and motivate the S&C coach to think more deliberately about coaching behaviour change as they engage the S&C coach and encourage reflection through internal learning. Moon (2013) suggests that internal learning promotes internal dialogue and discussion of the meaningfulness and relevance of a situation. This internal dialogue is inherent in motivating change within coaching practice and supports the suggestion of Gergen, Gergen, and Barrett (2004) that the immense power of dialogue (internal or external) encourages behaviour change. The S&C coaches in our study were seen to engage in what Moon (2007) describes as more critical levels of reflection such as evaluating their coaching philosophy and values, and reworking their own views and ideas, especially when viewing the video format. The visual stimulus created a shift from descriptive to reflective accounts, from no questions to asking questions of oneself and to answering those questions, and from self-questioning to challenging one's own ideas (Moon, 2007).

Although reflective practice is encouraged within the elite S&C coaching context (Kuklick & Gearity, 2015; Mills & Gearity, 2016), the necessary guidance and education on how to effectively engage in deep reflection (i.e., searching for additional understanding and meaning) is sparse. Coaches new to reflection tend to have a limited understanding of what reflection entails. Thus, initially they reflect more descriptively rather than critically expressing positive and negative personal experiences (Callary, Werthner, & Trudel, 2011). The S&C coaches in our study predominantly approached the reflection process with an aim to solve a problem or reduce errors in their practice. Thus, our results strengthen Kuklick, Gearity and Thompson (2015a,b) findings that a reflection based on a problem-solving

1 approach is beneficial to develop effective coaching practice including intrapersonal and  
2 interpersonal skills. While a problem-based approach is part of critically reflecting, Dixon,  
3 Lee, and Ghaye (2013) suggest that reflecting on positives or successes, with the aim to  
4 understand what caused the successes and how to reproduce them, would further enhance the  
5 reflection process. Our findings suggest that the vignette did initiate the reflective process  
6 (i.e., provide topical focus and context) as S&C coaches are stimulated and encouraged to  
7 examine their coaching practice. Yet, a facilitated or guided process (in this case, an  
8 interview with targeted questions regarding S&C coach development) was required to  
9 enhance the S&C coach's understanding of what constitutes effective reflective practice, and  
10 then to progress the S&C coach into more critical reflection towards behaviour change. As a  
11 result, the S&C coaches participating in the present study identified areas for personal  
12 development and recommended a more formal, guided reflection process, which is in line  
13 with Knowles, Katz and Gilbourne's (2012) suggestions of allowing for more critical  
14 reflection thus ensuring behaviour change. The S&C coaches perceived the vignette to be  
15 useful to encourage reflection, but we suggest this could be more effective when included as  
16 part of a structured reflection and implementation process. Future research should consider  
17 investigating how vignettes might be included as part of a structured, guided reflective  
18 practice over a longer time-frame, to explore how they might influence the S&C coaches'  
19 engagement in the process of translating new information into active change. This approach  
20 would provide S&C coach developers with a structure to develop effective psychosocial  
21 coaching behaviours in an applied setting.

22 Our findings also illustrated how the vignette encouraged the S&C coaches to engage  
23 with moral, ethical, and societal issues of the coaching process such as their values and  
24 philosophies. Sport coaching is a psychosocial practice, an activity that happens between

1 people (Cassidy, Jones, & Potrac, 2015; Kirk, 2010). The importance of psychosocial  
2 behaviours and characteristics within sports coaching is not novel and previous research has  
3 emphasised the importance of areas such trust (Jowett & Poczwardowski, 2007), social  
4 support (Brooks, Ziatz, Johnson, & Hollander, 2000; Magnusen, 2010), and being able to  
5 motivate or counsel (Szedlak et al., 2015). However, whilst we know these elements are  
6 fundamental to effective coaching, research so far has neglected to examine adequate  
7 strategies to develop such psychosocial behaviours in S&C coaches. Our results emphasise  
8 how S&C coaches evaluated their psychosocial world, including considering their coaching  
9 values and philosophies, leading to a change in coaching behaviours. Thus, our results  
10 suggest that the use of vignettes is suitable to encourage narrative learning and has potential  
11 as a practical and effective coach development tool.

12       Whilst we have highlighted the perceived benefits of using vignettes to encourage  
13 narrative learning and develop S&C coaching practice, there are various limitations of the  
14 study to consider. Although our vignette was perceived as resonating with the S&C coaches,  
15 the amateur actors used in creating the vignette may partially limit the authenticity of ‘real’  
16 coaching. Furthermore, some of the S&C coaching scenarios presented (e.g., focusing on  
17 athletes from one specific sport such as sailing) might not have been relevant to the  
18 participants’ own coaching environment. Thus, future research might also consider the use of  
19 vignettes based on actual video footage of experienced S&C coaches representing real-life,  
20 sport-specific coaching practice. Another possible limitation is that the S&C coaches’  
21 responses to the vignette do not predict how they would actually react in a similar situation  
22 with an athlete. Though research proposes that S&C coaches’ reflection on the vignette might  
23 be seen as a social action in its own right (Jenkins et al., 2010), we suggest the use of



1 vignettes in S&C coach development should be seen as a scaffolding strategy, which could  
2 provide topical focus for reflection on actual coaching experiences.

3 Further aspects of using vignettes in an applied context need to be considered in view  
4 of how they might be used to disseminate information. Vignettes can communicate complex  
5 knowledge in a straightforward way to a variety of audiences, due to its storied form. Such  
6 communication relies on narrative imagination, which requires mental effort that is  
7 influenced by experience, mental capacity, and mood (Murphy et al., 2008). Thus, it could be  
8 argued if the S&C coach is mentally tired, then using vignettes to communicate new  
9 information may have limited effect. In addition, coaching has been described as is an  
10 idiosyncratic process, meaning that there are many ways to learn to become an effective  
11 coach (Callary et al., 2012; Werthner & Trudel, 2009), thus preference of learning strategies  
12 including delivery formats is individual and personal. While our results illustrate an overall  
13 preference for the video format, it may be that some S&C coaches would prefer different  
14 formats, depending on their individual learning styles. Therefore, our findings should be  
15 considered as one possible novel, alternative strategy to disseminate information to the S&C  
16 coach, which could be utilised to add value to existing S&C coach development strategies  
17 (i.e., academic publications, conferences, internships, mentorship, workshops).

18 In summary, results of the current study contribute to the literature in three specific  
19 ways. First, our results suggest that vignettes can be an effective knowledge translation tool  
20 for S&C coaches, thus strengthening the findings of previous research that has found  
21 evidence of vignettes to disseminate information in an applied setting (Gearity & Metzger,  
22 2017; Perrier et al., 2015; Smith et al., 2015). Second, whilst S&C coaches identified various  
23 strengths of the audio and written format, S&C coaches appear to prefer accessing the  
24 vignette in video format as this more fully engaged them in the knowledge translation

- 1 process. Last, our results highlight the potential of using vignettes as a narrative learning
- 2 strategy that encourages reflective practice, with the aim of leading to behaviour change.
- 3 Thus, our results suggest that S&C coach developers, such as the UKSCA and NSCA, should
- 4 consider vignettes as a novel, alternative strategy that contributes to the development of
- 5 effective S&C coaching practice.

## References

- Andrews, M. (2014). *Narrative imagination and everyday life*. New York: Oxford University.
- Barter, C., & Renold, E. (2000). 'I wanna tell you a story': Exploring the application of vignettes in qualitative research with children and young people. *International Journal of Social Research Methodology*, 3(4), 307-323.
- Becker, A. (2009). It's not what they do, it's how they do it: Athlete experiences of great coaching. *International Journal of Sports Science & Coaching*, 4(1), 93-119.
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. London: Sage.
- Braun, V., Clarke, V., & Weate, P. (2017). Using thematic analysis in sport and exercise research. In B. M. Smith & A. C. Sparkes (Eds.), *Routledge handbook of qualitative research in sport and exercise* (pp. 191-205). London & New York: Taylor & Francis.
- Brockmeier, J. (2009). Reaching for meaning human agency and the narrative imagination. *Theory & Psychology*, 19(2), 213-233.
- Brockmeier, J. (2012). Narrative scenarios: Toward culturally thick notion of narrative. In J. Valsiner (Ed.), *The Oxford handbook of culture and psychology* (pp. 439-467). Oxford: Oxford University.
- Brooks, D. D., Ziatz, D., Johnson, B., & Hollander, D. (2000). Leadership behavior and job responsibilities of NCAA division 1A strength and conditioning coaches. *The Journal of Strength & Conditioning Research*, 14(4), 483-492.
- Burke, S. (2016). Rethinking 'validity' and 'trustworthiness' in qualitative inquiry: How might we judge the quality of qualitative research in sport and exercise sciences (pp. 330-339): Routledge London.

- 1 Callary, B., Werthner, P., & Trudel, P. (2011). Shaping the way five women coaches  
2 develop: Their primary and secondary socialization. *Journal of Coaching Education*,  
3 4(3), 76-96.
- 4 Callary, B., Werthner, P., & Trudel, P. (2012). How meaningful episodic experiences  
5 influence the process of becoming an experienced coach. *Qualitative Research in*  
6 *Sport, Exercise & Health*, 4(3), 420-438.
- 7 Canadian Institutes of Health Research. (2013). About knowledge translation and  
8 commercialization. Retrieved from <http://www.cihr-irsc.gc.ca/e/29529.html>
- 9 Cassidy, T. G., Jones, R. L., & Potrac, P. A. (2015). *Understanding sports coaching: the*  
10 *pedagogical, social and cultural foundations of coaching practice*. London & New  
11 York: Routledge.
- 12 Connelly, L. M., & Peltzer, J. N. (2016). Underdeveloped themes in qualitative research:  
13 Relationship with interviews and analysis. *Clinical Nurse Specialist*, 30(1), 52-57.
- 14 Dabbagh, N., & Kitsantas, A. (2012). Personal Learning Environments, social media, and  
15 self-regulated learning: A natural formula for connecting formal and informal  
16 learning. *The Internet & Higher Education*, 15(1), 3-8.
- 17 Dawson, A. J., Leonard, Z. M., Wehner, K. A., & Gastin, P. B. (2013). Building without a  
18 plan: The career experiences of Australian strength and conditioning coaches. *The*  
19 *Journal of Strength & Conditioning Research*, 27(5), 1423-1434.
- 20 Dixon, M., Lee, S., & Ghaye, T. (2013). Reflective practices for better sports coaches and  
21 coach education: Shifting from a pedagogy of scarcity to abundance in the run-up to  
22 Rio 2016. *Reflective Practice*, 14(5), 585-599.
- 23 Dorgo, S. (2009). Unfolding the practical knowledge of an expert strength and conditioning  
24 coach. *International Journal of Sports Science & Coaching*, 4(1), 17-30.

- 1 Douglas, K., & Carless, D. (2008). Using stories in coach education. *International Journal of*  
2 *Sports Science & Coaching*, 3(1), 33-49.
- 3 Foulon, B. L., & Ginis, K. A. M. (2013). The effects of physical activity vignettes on  
4 physical activity-related social cognitions among people with spinal cord injury.  
5 *Disability & Rehabilitation*, 35(24), 2073-2080.
- 6 Frank, A. W. (2010). *Letting stories breathe: A socio-narratology*. Chicago & London:  
7 University of Chicago.
- 8 Gearity, B. T., & Metzger, L. H. (2017). Intersectionality, microaggressions, and  
9 microaffirmations: Towards a cultural praxis of sport coaching. *Sociology of Sport*  
10 *Journal*, 34(2), 160-175.
- 11 Gergen, M. M., Gergen, K. J., & Barrett, F. (2004). Appreciative inquiry as dialogue:  
12 Generative and transformative. In D. A. Cooperrider & M. Avital (Eds.),  
13 *Constructive discourse and human organization* (pp. 3-27). London: Emerald Group.
- 14 Graham, I. D., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., & Robinson,  
15 N. (2006). Lost in knowledge translation: time for a map? *Journal of Continuing*  
16 *Education in the Health Professions*, 26(1), 13-24.
- 17 Graham, I. D., & Tetroe, J. (2007). CIHR research: How to translate health research  
18 knowledge into effective healthcare action. *Healthcare Quarterly*, 10(3).
- 19 Grimshaw, J. M., Eccles, M. P., Lavis, J. N., Hill, S. J., & Squires, J. E. (2012). Knowledge  
20 translation of research findings. *Implementation Science*, 7(1), 50-67.
- 21 Hellström, T. (2008). Transferability and naturalistic generalization: new generalizability  
22 concepts for social science or old wine in new bottles? *Quality & Quantity*, 42(3),  
23 321-337.
- 24 Hennink, M., Hutter, I., & Bailey, A. (2010). *Qualitative research methods*. London: Sage.

- 1 Hughes, R. (1998). Considering the vignette technique and its application to a study of drug  
2 injecting and HIV risk and safer behaviour. *Sociology of Health & Illness*, 20(3), 381-  
3 400.
- 4 International Council for Coaching Excellence, Association of Summer Olympic  
5 International Federations, & Leeds Metropolitan University. (2013). *International*  
6 *sport coaching framework* (version 1.2). Champaign, IL: Human Kinetics.
- 7 Jenkins, N., Bloor, M., Fischer, J., Berney, L., & Neale, J. (2010). Putting it in context: The  
8 use of vignettes in qualitative interviewing. *Qualitative Research*, 10(2), 175-198.
- 9 Jowett, S., & Poczwardowski, A. (2007). Understanding the coach-athlete relationship. In S.  
10 J. D. Lavalley (Ed.), *Social Psychology in Sport* (pp. 3-14). Champaign, IL: Human  
11 Kinetics.
- 12 Kirk, D. (2010). Towards a socio-pedagogy of sports coaching. In J. Lyle & C. Cushion  
13 (Eds.), *Sports coaching: professionalisation and practice* (pp165-176). Edinburgh:  
14 Elsevier.
- 15 Knowles, Z., Katz, J., & Gilbourne, D. (2012). Reflective practice within elite consultancy:  
16 Diary extracts and further discussion on a personal and elusive process. *The Sport*  
17 *Psychologist*, 26(3), 454-469.
- 18 Kuklick, C. R., & Gearity, B. T. (2015). A review of reflective practice and its application for  
19 the football strength and conditioning coach. *Strength & Conditioning Journal*, 37(6),  
20 43-51.
- 21 Kuklick, C. R, Gearity, B. T., & Thompson, M. (2015a). Reflective practice in a university-  
22 based coach education program. *International Sport Coaching Journal*, 2, 248-260.

- 1 Kuklick, C. R, Gearity, B. T., & Thompson, M. (2015b). The efficacy of reflective practice  
2 and coach education on intrapersonal knowledge in the higher education setting.  
3 *International Journal of Coaching Science*, 9(2), 23-42.
- 4 Langdon, J., Harris, B. S., Burdette III, G. P., & Rothberger, S. (2015). Development and  
5 implementation of an autonomy supportive training program among youth sport  
6 coaches. *International Sport Coaching Journal*, 2(2), 169-177.
- 7 Lipshitz, R., Klein, G., Orasanu, J., & Salas, E. (2001). Taking stock of naturalistic decision  
8 making. *Journal of Behavioral Decision Making*, 14(5), 331-352.
- 9 Lyle, J. (2010). Coaches' decision making: A naturalistic decision making analysis. In J. Lyle  
10 & C. Cushion (Eds.), *Sports coaching: Professionalisation and practice* (pp. 27-41).  
11 Edinburgh: Churchill Livingstone.
- 12 Magnusen, M. J. (2010). Differences in strength and conditioning coach self-perception of  
13 leadership style behaviors at the National Basketball Association, Division IA, and  
14 Division II levels. *The Journal of Strength & Conditioning Research*, 24(6), 1440-  
15 1450.
- 16 Martin, V. (2007). Dialogue in the narrative process. *Medical Humanities*, 33(1), 49-54.
- 17 Massey, C. D., Maneval, M. W., Phillips, J., Vincent, J., White, G., & Zoeller, B. (2002). An  
18 analysis of teaching and coaching behaviors of elite strength and conditioning  
19 coaches. *The Journal of Strength & Conditioning Research*, 16(3), 456-460.
- 20 McAdams, D. P. (1993). *The stories we live by: Personal myths and the making of the self*.  
21 London & New York: Guilford.
- 22 Mills, J. P., & Gearity, B. (2016). Toward a sociology of strength and conditioning coaching.  
23 *Strength & Conditioning Journal*, 38(3), 102-105.

- 1 Moon, J. (2007). *Critical thinking: An exploration of theory and practice*. Abingdon:  
2 RoutledgeFalmer.
- 3 Moon, J. (2013). *Reflection in learning and professional development: Theory and practice*.  
4 Abingdon: RoutledgeFalmer.
- 5 Murphy, S., Nordin, S. M., & Cumming, J. (2008). Imagery in sport, exercise and dance. In  
6 T.S. Horn (Ed.), *Advances in sport psychology* (pp. 297-324). Champaign, IL: Human  
7 Kinetics.
- 8 Murray, M. (2011). Delivering coaching education online: Practical tips for online educators.  
9 *Journal of Coaching Education*, 4(2), 62-72.
- 10 O'Reilly, M., & Parker, N. (2013). 'Unsatisfactory Saturation': A critical exploration of the  
11 notion of saturated sample sizes in qualitative research. *Qualitative Research*, 13(2),  
12 190-197.
- 13 Paas, F., Van Gog, T., & Sweller, J. (2010). Cognitive load theory: New conceptualizations,  
14 specifications, and integrated research perspectives. *Educational Psychology Review*,  
15 22(2), 115-121.
- 16 Papathomas, A. (2016). Narrative Inquiry. In B. M. Smith & A. C. Sparkes (Eds.), *Routledge*  
17 *handbook of qualitative research in sport and exercise*. London & New York: Taylor  
18 & Francis.
- 19 Paquette, K., & Trudel, P. (2016). Learner-centered teaching: A consideration for revitalizing  
20 coach education. In P. A. Davies (Ed.), *The psychology of effective coaching and*  
21 *management* (pp. 53-70). New York: Nova Science.
- 22 Paquette, K., & Trudel, P. (2018). Learner-centered coach education: Practical  
23 recommendations for coach development administrators. *International Sport*  
24 *Coaching Journal*, 5, 169-175.



- 1 Peek, L. E., Peek, G. S., & Horras, M. (1994). Enhancing Arthur Andersen business ethics  
2 vignettes: Group discussions using cooperative/collaborative learning techniques.  
3 *Journal of Business Ethics*, 13(3), 189-196.
- 4 Perrier, M.-J., Smith, B., & Latimer-Cheung, A. E. (2015). Stories that move? Peer athlete  
5 mentors' responses to mentee disability and sport narratives. *Psychology of Sport &*  
6 *Exercise*, 18, 60-67.
- 7 Petraglia, J. (2009). The importance of being authentic: Persuasion, narration, and dialogue in  
8 health communication and education. *Health Communication*, 24(2), 176-185.
- 9 Phoenix, C. (2010). Seeing the world of physical culture: the potential of visual methods for  
10 qualitative research in sport and exercise. *Qualitative Research in Sport & Exercise*,  
11 2(2), 93-108.
- 12 Pope, J. P., Stewart, N. W., Law, B., Hall, C. R., Gregg, M. J., & Robertson, R. (2015).  
13 Knowledge translation of sport psychology to coaches: Coaches' use of online  
14 resources. *International Journal of Sports Science & Coaching*, 10(6), 1055-1070.
- 15 Potrac, P., Jones, R. L., Purdy, L., Nelson, L., & Marshall, P. (2013). Towards an emotional  
16 understanding of coaching practice. In P. Potrac, W. Gilbert, & J. Denison (Eds.),  
17 *Routledge handbook of sports coaching* (pp. 235-246). London: Routledge
- 18 Reade, I., Rodgers, W., & Hall, N. (2008). Knowledge transfer: How do high performance  
19 coaches access the knowledge of sport scientists? *International Journal of Sports*  
20 *Science & Coaching*, 3(3), 319-334.
- 21 Reade, I., Rodgers, W., & Spriggs, K. (2008). New ideas for high performance coaches: A  
22 case study of knowledge transfer in sport science. *International Journal of Sports*  
23 *Science & Coaching*, 3(3), 335-354.

- 1 Scott, S. D., Hartling, L., O'Leary, K. A., Archibald, M., & Klassen, T. P. (2012). Stories—a  
2 novel approach to transfer complex health information to parents: A qualitative study.  
3 *Arts & Health, 4*(2), 162-173.
- 4 Smith, B. (2010). Narrative inquiry: Ongoing conversations and questions for sport and  
5 exercise psychology research. *International Review of Sport and Exercise*  
6 *Psychology, 3*(1), 87-107.
- 7 Smith, B. (2017). Generalizability in qualitative research: misunderstandings, opportunities  
8 and recommendations for the sport and exercise sciences. *Qualitative Research in*  
9 *Sport, Exercise & Health, 10*(1), 137-149.
- 10 Smith, B., & McGannon, K. R. (2017). Developing rigor in qualitative research: problems  
11 and opportunities within sport and exercise psychology. *International Review of Sport*  
12 *& Exercise Psychology, 11*(1), 101-121.
- 13 Smith, B., & Sparkes, A. C. (2009). Narrative inquiry in sport and exercise psychology: What  
14 can it mean, and why might we do it? *Psychology of Sport & Exercise, 10*(1), 1-11.
- 15 Smith, B., Tomasone, J. R., Latimer-Cheung, A. E., & Martin-Ginis, K. A. (2015). Narrative  
16 as a knowledge translation tool for facilitating impact: Translating physical activity  
17 knowledge to disabled people and health professionals. *Health Psychology, 34*(4),  
18 303-313.
- 19 Sparkes, A. C., & Smith, B. (2009). Judging the quality of qualitative inquiry: Criteriology  
20 and relativism in action. *Psychology of Sport & Exercise, 10*(5), 491-497.
- 21 Sparkes, A. C., & Smith, B. (2014). *Qualitative research methods in sport, exercise and*  
22 *health: From process to product*. Abingdon: Routledge.

- 1 Szedlak, C., Callary, B., & Smith, M. J. (2018). Exploring the influences and practical  
2 development of coaches' psychosocial behaviours in strength and conditioning  
3 *Strength & Conditioning Journal*, (in press).
- 4 Szedlak, C., Smith, M., Day, M., & Callary, B. (2018). Using vignettes to analyse potential  
5 influences of effective strength and conditioning coaching on athlete development.  
6 *The Sport Psychologist*, 1-42.
- 7 Szedlak, C., Smith, M. J., Day, M. C., & Greenlees, I. A. (2015). Examining athletes'  
8 perceptions of effective behaviours in strength and conditioning coaching.  
9 *International Journal of Sports Science & Coaching*, 10(5), 967-984.
- 10 Taylor, G. (2016). *Talented athlete scholarship scheme policy document*. Newcastle:  
11 Newcastle University.
- 12 Tod, D. A., Bond, K. A., & Lavallee, D. (2012). Professional development themes in strength  
13 and conditioning coaches. *The Journal of Strength & Conditioning Research*, 26(3),  
14 851-860.
- 15 Tracy, S. J. (2010). Qualitative quality: Eight "big-tent" criteria for excellent qualitative  
16 research. *Qualitative Inquiry*, 16(10), 837-851.
- 17 Trajkovski, S., Schmied, V., Vickers, M., & Jackson, D. (2013). Implementing the 4D cycle  
18 of appreciative inquiry in health care: a methodological review. *Journal of Advanced*  
19 *Nursing*, 69(6), 1224-1234.
- 20 UKSCA. (2018). UKSCA competency document. Retrieved from  
21 <https://www.uksca.org.uk/assets/pdfs/ASCCdocs/ASCCcompetencyDocument.pdf>
- 22 Werthner, P., & Trudel, P. (2009). Investigating the idiosyncratic learning paths of elite  
23 Canadian coaches. *International Journal of Sports Science & Coaching*, 4(3), 433-  
24 449.

